MARS GLOBAL SURVEYOR: MAPPING MARS

by

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ABSTRACT

The Mars Global Surveyor spacecraft has completed aerobraking, circularizing its orbit to the conditions required for mapping of Mars, and has begun its 687 day mission of global data acquisition from the atmosphere, surface and subsurface of the planet. This paper discusses the engineering and management aspects of the completion of the aerobraking activity; the transition of the spacecraft's configuration and operational state to that required for mapping; and provides a detailed discussion of the mapping process. The planning for the Mars Global Surveyor's radio relay communications support of the New Millennium Microprobes and the Mars Polar Lander missions will also be discussed. An overview of the scientific results and mapping operational experiences to date will be provided.